

Title (en)
METHODS, ELECTRONIC DEVICES, AND CHARGER APPARATUS FOR QUICK USB CHARGING

Title (de)
VERFAHREN, ELEKTRONISCHE VORRICHTUNGEN UND LADEGERÄT ZUM USB-SCHNELLLADEN

Title (fr)
PROCÉDÉS, DISPOSITIFS ÉLECTRONIQUES, ET CHARGEUR POUR CHARGE USB RAPIDE

Publication
EP 3178007 A4 20180228 (EN)

Application
EP 14899393 A 20140805

Priority
CN 2014083659 W 20140805

Abstract (en)
[origin: WO2016019498A1] USB charger apparatus (110) and chargeable electronic devices (120) are presented in which the device (120) and charger (110) use USB cable data lines (130) to establish a bidirectional communications connection, and the charger (110) provides charger capability information to a master controller (124) of the electronic device (120) via the communications connection. The device controller preferentially selects a fastest charging match between the charger capability information and device charging capability information, and sends configuration information through the communications connection to set the power supply level of the charger (110). The charger (110) communicates power supply status information to the electronic device (120), and the device (120) can reconfigure the charger power supply level accordingly.

IPC 8 full level
G06F 13/14 (2006.01)

CPC (source: EP US)
H02J 7/00 (2013.01 - US); **H02J 7/00034** (2020.01 - EP US); **H02J 7/00047** (2020.01 - EP US)

Citation (search report)
• [X] WO 2013006753 A1 20130110 - VOXX INT CORP [US], et al
• [X] US 2014095899 A1 20140403 - SULTENFUSS ANDREW T [US], et al
• [X] US 2005174094 A1 20050811 - PURDY MICHAEL L [CA], et al
• [A] CN 103618356 A 20140305 - TCL COMM NINGBO CO LTD
• [A] EP 2402864 A2 20120104 - SAMSUNG ELECTRONICS CO LTD [KR]
• [A] US 2013335007 A1 20131219 - TING MING-CHIANG [TW]
• See also references of WO 2016019498A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2016019498 A1 20160211; CN 106716389 A 20170524; CN 106716389 B 20200410; CN 111404219 A 20200710; CN 111404219 B 20240618; EP 3178007 A1 20170614; EP 3178007 A4 20180228; JP 2017525053 A 20170831; JP 6501867 B2 20190417; US 10014703 B2 20180703; US 11646585 B2 20230509; US 2016043586 A1 20160211; US 2018254650 A1 20180906

DOCDB simple family (application)
CN 2014083659 W 20140805; CN 201480080874 A 20140805; CN 202010181889 A 20140805; EP 14899393 A 20140805; JP 2017506704 A 20140805; US 201414562920 A 20141208; US 201815972997 A 20180507